

# Memorandum



**Date:** February 7, 2006

Agenda Item No. 12(B)4

**To:** Honorable Chairman Joe A. Martinez and Members  
Board of County Commissioners

**From:** George M. Burgess  
County Manager

A handwritten signature in black ink, appearing to read "Burgess", written over the printed name of George M. Burgess.

**Subject:** Annual Report on Swap Transactions for Fiscal Year ended September 30, 2005

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Pursuant to the County's Swap Policy, below is the annual report on the status of swaps the County has entered into with various counterparties. This report summarizes the swaps that the County has entered into since 1993 and the swap benefit received for fiscal year ending September 30, 2005. Exhibit A, lists the detail of each swap transaction.

For the purpose of this report, the following general concepts are helpful. An interest rate swap is a contractual agreement between two parties (the issuer and the counterparty) in which one stream of cash flows is exchanged or "swapped" for another series of cash flows during a mutually agreed upon period of time. A swap is designed to change the interest rate cash flows related to an underlying asset or liability without impacting the principal amount. In an interest rate swap, both parties agree to the rates they will pay each other and the notional (principal) amount that will be used as the basis for calculating the amounts due to each party.

Although the components of each swap can vary, the typical interest rate swap is one in which one party's payments are calculated using a fixed interest rate while the other party's payments are calculated using a variable or floating interest rate. Payments are calculated on the notional amount as agreed to in the swap documents. The fixed rate is fixed for the life of the swap and the variable rate floats in conjunction with an underlying index/interest rate such as Treasury Bills, LIBOR, or BMA. LIBOR is the London InterBank Offer Rate which is the most frequently used index for taxable transactions. BMA is the Bond Market Association Municipal Swap Index which is the typical benchmark index used for the municipal bond market.

Counterparties are the entities that sign the swap documents. Typically the County or the issuer would be one of the counterparties, and the other counterparty would be swap dealer such as a commercial bank or a subsidiary of an investment bank. Swap dealers earn fees for arranging and carrying the swap by imbedding or adjusting the rates the dealer pays to or receives from the issuer. Termination value is the remaining value of the swap calculated based on current market rates or prices of the underlying instruments and is the risk that a swap will be terminated by the counterparty before maturity that could result in the issuer having to make a cash termination payment to the counterparty.

Once bonds are issued, the bond payment obligations do not change, and the County is obligated to make payments to the purchasers/investors of our bonds. Although swaps are used as a debt management tool and associated with a bond transaction, it is a stand alone contractual obligation. The County does not enter into swaps for speculative purposes. Swaps can be entered into at the same time as bonds are issued or in anticipation or subsequent to a bond issuance.

Below is a summary of the benefit achieved in fiscal year 2005 by Department or Credit. The detail of each swap is listed in Exhibit A.

<b>Department</b>	<b>Counterparty</b>		<b>2005 Benefit</b>
<b>Water &amp; Sewer</b>			
Series 1994	AIG	Variable to Fixed	\$ 891,557
Series 1997	Merrill Lynch	Fixed to Variable	\$ 1,773,750
Series 1997	Rice	Basis Swap	\$ 1,418,956
Series 2005	Bank of America	Swaption Variable to Fixed	\$27,645,965 * All up front
<b>Total Benefit for Water &amp; Sewer</b>			<b>\$31,730,228</b>
<b>Solid Waste</b>			
Series 1996	Rice	Fixed to Variable	\$ 2,846,942
Series 1996	Rice	Basis Swap	\$ (516,525)
<b>Total Benefit for Solid Waste</b>			<b>\$2,330,417</b>
<b>Convention Development Tax</b>			
Series 1996	Rice	Basis Swap	\$ 756,735
Series 1996	Rice	Basis Swap	\$ 158,248
Series 1997	Rice	Basis Swap	\$2,413,883
Series 1997	Rice	Basis Swap	\$ 790,360
<b>Total Benefit for Convention Development</b>			<b>\$4,119,226</b>
<b>Business Assistance Center</b>			
Series 2000B	Rice	Basis Swap	\$ 122,248
<b>Capital Asset Acquisition</b>			
Series 2004	J.P. Morgan	CPI	\$ 764,851
<b>Cumulative Benefit for fiscal year 2005</b>			<b>\$39,066,970</b>

Miami-Dade County has entered into swaps that fall into the following categories:

*Miami-Dade County issues fixed rate bonds and swaps the interest payments to variable interest rates.* This type of swap is typically done to take advantage of the variable rate market which is usually at a lower interest rate and does not require credit or bank liquidity support usually required for variable rate bonds. Variable rate debt is used in moderation, as the rating agencies view overexposure to variable interest rate negatively.

*Miami-Dade County issues variable rate bonds and swaps the interest payments to fixed interest rates.* This is typically done to take advantage of a lower synthetic fixed

rate than would have been available on a traditional fixed rate bond. The synthetic rate is the fixed rate on the swap plus the credit support fees and remarketing fees on the variable rate bonds.

*Miami-Dade County issues fixed rate bonds and enters into a basis swap based on the relationship between the taxable index and the tax exempt index.* In some cases, the County could make payments to the Counterparty based on a percentage of the taxable index, such as LIBOR. In other cases, it may be based on a complex formula.

### **Risks**

There are a number of risks that are evaluated prior to entering into swap transactions. Where possible, the risks inherent in swap transactions were mitigated or reduced through the use of reserve funds or contract provisions that were meant to give the County control of defaults which could cause the County to make termination payments. Risks associated with swap transaction are discussed below:

*Counterparty Risk* is the risk that the Swap Counterparty will not fulfill its obligations specified in the swap contract. The typical reason that a Counterparty fails to meet its obligations is bankruptcy or insolvency. County policy is to require Counterparties to be rated in the top two rating categories at the inception of the swap and incorporate the need for the Counterparty to post collateral upon its downgrade to levels not acceptable to the County. Counterparty risk is further mitigated through diversification to prevent the County from being overly exposed to a single Counterparty.

*Termination Risk* is the risk that a swap may be terminated prior to its scheduled maturity date. There are two types of termination risk: (a) a voluntary termination whereby the swap is terminated by the County; and (b) an involuntary termination whereby the swap is terminated by the Counterparty upon certain events stated in the swap documents. Upon termination, the County may have to make termination payments to the Counterparty or the County may receive termination payments from the Counterparty, depending on market conditions.

The amount of the termination payment is equal to the fair market value of the swap at the time of termination. The fair market value is equal to the present value of the anticipated payment, and is impacted by the notional amount and the term of the swap. The termination payments may be substantial. The County mitigates termination risk by tightly restricting the Counterparties' right to terminate the swap prior to maturity and by limiting downgrade events against the County.

*Interest Rate Risk* is the risk that the County's debt service costs associated with variable rate debt increases and negatively impacts budgets, coverage ratios and cash flow margins. Interest rate risk is impacted when interest rates are on the rise.

*Basis Risk* is the risk that the interest rate the County will pay to the Bondholder will not match to the interest rate the County receives from the Counterparty on the swap. The County mitigates this exposure by analyzing the transaction and determining that the benefit more than offsets the interest rate exposure

*Tax Risk* is a type of basis risk, the risk of a mismatch between the floating rate on the tax exempt debt and the interest rate based on the swap index, such as one based on a taxable index like LIBOR. The correlation between the LIBOR based rate and the floating rate based on a tax exempt index known as BMA is affected by changes in tax law or other market events.

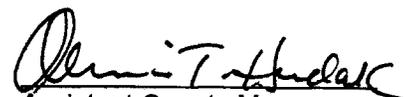
*Rollover Risk* is the risk which occurs when the term of the Swap does not match the term of the associated bonds. Normally rollover risk arises when the issuer issues variable rate bond and enters into a swap to synthetically fix the interest rate. If the term of such a swap does not correspond with the term of the bonds, there is rollover risk that the issuer would be exposed to variable rates.

**Swap Exposure**

A summary of the County's notional amount, termination value by Counterparty and the Counterparties Credit Ratings from Moody's, S&P and Fitch is as follows:

<u>Counterparty</u>	<u>Notional Amount</u>	<u>Termination Value At September 30, 2005</u>
<b>AIG Financial Products Corp.</b> Ratings: Aaa; AAA; AAA	\$ 417,780,000	(\$ 69,342,981)
<b>Merrill Lynch Capital Services</b> Ratings: Aa3; A+; AA-	\$ 215,000,000	\$ 6,706,809
<b>Bank of America, NA</b> Ratings: Aa1; AA; AA-	\$295,240,000	( \$ 32,345,266)
<b>JPMorgan Chase Bank</b> Ratings: Aa2; AA-; n/a	\$ 50,000,000	\$ 478,682
<b>GBDP – Rice Financial Products GenRe</b> Ratings: Aaa; AAA; AAA	\$ 86,400,000	\$ 5,001,211
<b>Rice Financial Products- AMBAC</b> Ratings: Aaa; AAA; AAA	\$ 788,219,862	(\$ 13,648,409)

As a result of prudent analysis and risk tolerance management pursuant to the County's Master Swap Policy, the County has achieved savings of \$39,066,970 in Fiscal Year 2005 (of which \$27,645,965 represents upfront savings), and cumulative savings of \$116,627,135 since 1993.

  
 Assistant County Manager

**Exhibit A**

**Miami-Dade County Swaps as of September 30, 2005**

(A) Below are the County's swaps, where the County issued fixed rate bonds and swapped the interest payments to a variable interest rate.

<b>Bond Series</b>	<b>Counterparty and Dates</b>	<b>Notional Amounts</b>	<b>Benefit</b>	<b>Termination Value</b>
Water & Sewer Series, 1997, initially the Water and Sewer Series 1993 and was later associated with the Water and Sewer Series 1995	Merrill Lynch Capital Services  Term: 12/15/1993-10/15/2020	12/15/1993: \$175,000,000  9/30/2005: \$215,000,000	<b>Savings</b> is the difference of a Fixed Receiver Rate of 5.225% and a Fixed Payer Rate of 4.40%.  Savings from 1993 - 2004 \$ 21,093,195 2005 <u>1,773,750</u> YTD \$ <u>22,866,944</u>	<b>\$6,706,809</b>
Solid Waste Department (Resource Recovery, Series 1996)	GBDP - (Guarantor – GenRe)  Term: 9/10/1996-10/1/2013	09/10/1996: \$182,695,000  9/30/2005: \$86,400,000	<b>Savings</b> is the difference of a Fixed Receiver Rate of 6.01676% and a Variable Payer Rate of BMA plus 0.49776%.  Savings from 1997 - 2004 \$ 21,051,383 2005 <u>2,846,942</u> YTD \$ <u>23,898,325</u>	<b>\$5,001,211</b>

(B) Below are the County's swaps, where the County issued variable rate bonds and swapped the interest payments to a fixed interest rate.

<b>Bond Series</b>	<b>Counterparty And Dates</b>	<b>Notional Amounts</b>	<b>Benefit</b>	<b>Termination Value</b>
Water & Sewer Series, 1994	AIG Financial  Term: 2/4/1994- 10/5/2022	02/04/1994: \$418,540,000  9/30/2005: \$417,780,000	<b>Savings</b> is the difference of a Fixed Payer Rate of 5.28% (inclusive of liquidity fees 5.565%) and a 2/4/94 expected Fixed Bond Rate of 5.78%.  Savings from 1994 -2004 \$ 8,926,825 2005 891,557 YTD \$ 9,818,382	<b>(\$69,342,981)</b>
Water & Sewer Series, 2005	Bank of America  Term: 10/1/2005- 10/1/2025	9/30/2005: \$295,240,000	<b>Savings Receipt of upfront payment for Swaption from BofA</b> 2005 \$27,645,965 Total \$27,645,965.	<b>(\$32,345,266)</b>

(C) Below are the County's swaps where the County issued fixed rate bonds and entered into a basis swap.

<b>Bond Series</b>	<b>Counterparty And Dates</b>	<b>Notional Amounts</b>	<b>Benefit</b>	<b>Termination Value</b>
Water and Sewer Department Series 1997, initially the Water and Sewer Series 1993	Rice Financial Products Corporation – (Guarantor – AMBAC)  Term: 8/17/1998- 10/1/2026	08/17/1998: \$200,000,000  9/30/2005: \$200,000,000	<b>Savings</b> is the difference of a Variable Payer Rate of BMA divided by 0.604 and a Variable Receiver Rate of Libor plus 1.455%. Savings from 1998 - 2004 \$ 7,928,174 2005 1,418,956 YTD \$ 9,347,130	<b>(\$7,542,873)</b>
Solid Waste Department (Resource Recovery, Series 1996	Rice Financial Products Corporation – (Guarantor – AMBAC)  Term: 10/22/1997 10/1/2013	10/22/1997: \$140,175,000  9/30/2005: \$97,165,000	<b>Savings</b> is the difference of a Variable Payer Rate of BMA divided by 0.604 and a Variable Receiver Rate of Libor plus 0.30%.  Savings from 1998 -	<b>(\$1,381,673)</b>

			2004 \$ 7,370,274 2005 <u>(516,525)</u> YTD \$ <u>6,853,749</u>	
Convention Development Tax, Series 1996	Rice Financial Products Corporation – (Guarantor – AMBAC)  Term: 5/12/2000 10/1/2022	5/12/2000: \$102,611,557  9/30/2005: \$86,611,990	<b>Savings</b> is the difference of a Variable Payer Rate of BMA divided by 0.604 and a Variable Receiver Rate of Libor plus 1.65343%. Savings from 2000 - 2004 \$ 2,662,401 2005 <u>756,735</u> YTD \$ <u>3,419,136</u>	<b>(\$408,599)</b>
Convention Development Tax Series 1997	Rice Financial Products Corporation – (Guarantor – AMBAC)  Term: 5/12/2000- 10/1/2022	5/12/2000: \$291,625,675  9/30/2005: \$276,091,519	<b>Savings</b> is the difference of a Variable Payer Rate of BMA divided by 0.604 and a Variable Receiver Rate of Libor plus 1.65343%.  Savings from 2000 - 2004 \$ 8,183,352 2005 <u>2,413,883</u> YTD \$ <u>10,597,234</u>	<b>(\$2,476,282)</b>
Convention Development Tax Series 1996	Rice Financial Products Corporation – (Guarantor – AMBAC)  Term: 7/21/2004 10/1/2010	7/21/2004: \$19,627,539  9/30/2005: \$16,612,344	<b>Savings</b> is the difference of a Variable Payer Rate of BMA divided by 0.604 and a Variable Receiver Rate of Libor plus 1.77%.  2004 \$ 0 2005 <u>158,248</u> Total \$ <u>158,248</u>	<b>\$328,742</b>
Convention Development Tax Series 1997	Rice Financial Products Corporation – (Guarantor – AMBAC)  Term: 7/21/2004- 10/1/2022	7/21/2004: \$77,853,923  9/30/2005: \$91,014,009	<b>Savings</b> is the difference of a Variable Payer Rate of BMA divided by 0.604 and a Variable Receiver Rate of Libor plus 1.77%.  2004 \$ 0 2005 <u>790,360</u> Total \$ <u>790,360</u>	<b>(\$1,642,751)</b>
Special	JPMorgan	4/27/2004:	<b>Savings</b> is the	<b>\$478,682</b>

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Obligation Bonds Capital Asset Acquisition, Series 2004	Chase Bank  Term: 4/27/2004- 4/1/2014	\$50,000,000  4/1/2005: \$50,000,000	difference of a Variable Payer Rate of BMA plus 0.235% and Variable Receiver Rate of CPI plus various spreads.  2004 \$ 0 2005 <u>764,851</u> Total \$ <u>764,851</u>	
BAC Funding Corporation Project, Series 2000B	Rice Financial Products Corporation – (Guarantor – AMBAC)  Term: 8/2/2002- 10/1/2030	8/1/2004: \$21,570,000  9/30/2005: \$20,725,000	<b>Savings</b> is the difference of a Variable Payer Rate of BMA divided by 0.604 and a Variable Receiver Rate of Libor plus 1.31%.  Savings from 2002 - 2004 \$ 344,561 2005 <u>122,248</u> YTD \$ <u>456,809</u>	(\$524,973)

Swap Benefit for fiscal year 2005                      \$ 39,066,970

Swap Benefit cumulative year to date                \$116,627,135

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